

Quality Culture of the Royal Award Schools in Thailand: A Factor Analysis

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Abstract: *The main objective of this research was to investigate the linear structural relationship model of quality culture in the Royal Award Schools, Thailand. Researchers utilized a quantitative survey design and a questionnaire was used as an instrument. A total of 250 samples of nine research schools were selected from a total population of 1,155 school directors and teachers. Findings indicated that there are high, positive, and significant relationships between the seven hypothesized factors and quality culture at a significant level as .01. The factor loading values of all the seven factors ranged from 0.800 to 0.955. The relationship model of quality culture and its factors was found to be consistent with the empirical data with $\chi^2 = 918.64$; $df = 230$; $\chi^2/df = 1.416$; $CFI = 0.98$; $AGFI = 0.89$; $SRMR = 0.022$; $RMSEA = 0.017$; $RMR = 0.003$. The findings highlighted the importance of hypothesized factors to enhance quality culture in Royal Award Schools. As a result, the findings can be utilized by school directors as a reference in managing their schools that promoting quality culture.*

Keywords: *hypothesized factors, Royal Award School, quality culture*

INTRODUCTION

Current highly competitive and rapidly changing school environment, providing quality educational services that delight clients is crucial for ensuring long-term school success. In this regard, a quality culture creation is a prerequisite to sustain a continuous flow of quality educational services (1). A quality culture refers as a system of shared values, belief and norms that focuses on delighting clients and continuously improving the quality of educational services (1). This is supported by (2) who defined quality culture as an internal and external environment that is conducive for students' quality learning to occur in the school. Therefore, a high-quality culture is essential for organizational development because it encourages organizational members particularly teachers to contribute and lead to the collective goals of the school (3). Hence, a successful and enduring school has a culture that creates and sustains a working environment that is conducive to long-lasting quality improvement (2).

The quality issues of school arise at a time of great change and they push the school to look for a new identity such as Royal Award School, with respect to which the institutional changes can create significant potentialities. Through an appropriate approach to quality management systems, the school may innovate in order to identify its strengths and weaknesses and accelerate its efforts to obtain important external recognition (4). (2) explored the relationship between the perceptions of creative leadership and classroom quality in schools under the Office of Khon Kaen Primary Educational Service Area 1, Thailand. Their findings revealed that school directors were highly practicing a positive cultural aspect of creative leadership. Furthermore, classroom quality was significantly related to the five aspects of creative leadership practice at a significance level of .05. The three aspects of creative leadership namely vision, initiation, and management were the significant predictors and successfully contributing 71.3 percent of the variance towards the classroom quality.

Additionally, (5) investigated the relationships between school culture and leadership quality in 100 secondary schools located in upper northeastern provincial cluster 2, Thailand. Their results revealed that there is a positive and significant relationship between leadership quality and school culture. In addition, leadership quality was successfully contributing 74.30 percent of the variance of school quality with the three significant predictors as quality, decision making, and empowerment of leadership. On the other hand, (4) analyzed the quality criteria as part of the learning process, lines of action and organizations of the schools, the relationship of the same with the outside world, a world of work and

community of reference. (4) found that the interaction between schools with the territory and the social context can be effective if the school is able to analyze the strengths and weaknesses of the organizational solution adopted, reduce barriers that may hinder communication with other schools and the world of work, improve internal quality and develop training plan consistent with the needs of the context.

It is important to study quality culture primarily because of two key reasons. Firstly, quality culture of a school is significantly correlated with teacher behavior and attitude. Secondly, the ultimate creators of services and the end products of a school are people, not technology or formal quality procedures. In short, quality is the expression of human excellence (1). On this line of reasoning, quality culture increases teacher commitment and loyalty because of their sense of pride and emotional attachment to certain core values of the school. Besides, quality culture enables the attainment of strategic goals when there is a 'fit' between culture and strategies (5). As (5) emphasized that the success of any strategy rests heavily on the existence of a quality and supportive culture.

CONCEPTUALIZATION OF THE STUDY

In this research, cultural state of schools was conceptualized in the following four components namely values, assumptions, norms, and belief (6). Values mean responsibilities, decisions, and consequences of it, designed to foster students learning as well as a safe and orderly school. Assumptions refer to considering the students and staff welfare in all school decisions, frequent worthwhile communication among school community, planning and evaluation. Norms are defined as the high level of performance expectation, flexibility, risk-taking, communication, and great deal of cooperative respect among staff members. Beliefs mean be aware of school mission, necessity of job improvement and satisfaction, emphasis informally communication in school, and emphasis in attitude to teaching and learning (6).

School management had to be based on the school directors who had leadership and collaborative working of teachers. If the teachers had shared expression based on thought, belief, value, team working, the tradition and custom will lead to the development of quality culture, emphasized by (5). In addition, (7)'s findings indicated that the personal autonomy, structure, support, identity, performance-award, conflict tolerance, risk tolerance characteristics were the school culture factors in understanding the school cultural structure and school developmental process. Based on the discussed literature reviews, researchers conceptualized the quality culture model is driven by a combination of seven hypothesized factors namely teamwork (TEAM), focusing on client (CUS), strategy management (STR), teacher professional development (PRO), quality of leader development (LEA), staff participation (JOI), and continuous improvement (IMP).

TEAM is the collaborative effort of a teacher team to achieve a common goal or to complete a task in the most effective the efficient way. TEAM concept is seen within the greater framework of a team, which is a group of interdependent individuals who work together towards a common goal (8). Besides, researchers believe that quality culture must be purposively developed and managed to optimize the opportunity to reach a school mission to become vision, by focusing on students so called as CUS. This is because students bring their cultures with them to the school. According to (9), school culture is populated by clients and mostly promoted to student achievement, particularly when the school population is diverse and includes many who may not have had experiences developing the cultural capital leading to successful school performance.

STR involves the formulation and implementation of the major goals and initiatives taken by a school director, based on the consideration of resources and an assessment of the internal and external environments in which the school operates (9). On top of that, STR involves the related concepts of strategic planning and strategic thinking. Strategic planning is analytical in nature and refers to formalized procedures to produce the data and analysis used as inputs for strategic thinking, which synthesizes the data resulting in the strategy. Strategic planning refers to control mechanisms used to implement the strategic thinking and strategy making activity (10). PRO is defined as structured professional learning that results in changes in teacher practices and improvement in student learning outcomes (11).

LEA means the quality of a leader to expand his capacity to perform in leadership roles within the school. Leadership roles are those that facilitate execution of a school's strategy through alignment, winning mindshare and growing the capabilities of teachers (12). JOI in this research refers to the extent to which school directors allow or encourage teachers to share or participate in school decision-making (13). It is the responsibility of a school director to make sure that his teachers are continuing to improve

their tasks to support a singular focus, for example, student achievement. Therefore, IMP is defined as one promising approach that education can use on its path to improved outcomes (14).

THE OBJECTIVES OF THE STUDY

The main objective of this research is to identify the hypothesized factors of quality culture for Royal Award Schools in Thailand. More specifically, researchers sought to identify the hypothesized factors namely TEAM, CUS, STR, PRO, LEA, JOI, and IMP with regards to quality culture and followed by to test the goodness of fit of the quality culture factors with the empirical data.

METHODOLOGY

Researchers employed survey quantitative research design using a questionnaire to collect data. The target populations were 1,155 school directors and teachers who worked in the nine secondary schools that had been acknowledged as the Royal Award Schools from 2005 to 2014 in Thailand. A stratified random sampling technique was administered to select samples of the study. The required size was 250 samples according to rules of thumb for determining adequate sample size (N) are known to be of limited use in achieving an acceptable likelihood for desirable empirical outcomes for a particular application of confirmatory factor analysis (CFA) with real data (15). The common rules of thumb for determining adequate N for a particular application of CFA include, but are not limited to $N \geq 200$, ratio of N to the number of variables in a model (p), $N/p \geq 10$; After taking into account the above consideration, there were seven variables which led to a sample of not less than 193.

The survey questionnaire was used as an instrument were administered in the Thai language and consisting of two sections. There were 60 items including five demographic items and 55 items of quality culture factors. The demographic items were intended to gather information pertaining to their personal backgrounds such as gender, age educational level, job position, and working experience. On the other hand, the second section was specifically designed by researchers to gauge the perceptions of the samples on the quality culture of their schools.

This questionnaire was then sent to five experts for validation purpose. Besides, validation on the quality of the instrument in term of content validity was carried out based on the index of the item according to objective congruence (IOC) which must be ≥ 0.6 . The IOC scores indicated that all the items were higher than .06 thus fulfilled the requirement. From the five experts' feedback, researchers made the necessary modifications to the original instrument. The revised questionnaire was then piloted to two school directors and 30 teachers respectively for its reliability test. Since the Cronbach alpha value was 0.976, researchers concluded that the instrument was reliable.

The research was designed to make use of theories and/or hypotheses pertaining to the phenomenon under consideration. The process of measurement was to provide the fundamental connection between empirical observation and theoretical construct of quantitative relationships involving empirical data. The relationships are represented by regression or path coefficients between the quality culture factors (16). Data were analyzed using structural equation modeling (SEM) in order to fit the model. SEM was found to be suitable because it is a combination of factor analysis and regression or path analysis. SEM is often based on theoretical constructs which are represented by the latent factor. In this research, the relationships between the theoretical constructs were represented by regression between the quality culture factors. Therefore, the SEM implies a structure for the covariance between the observed variables.

CFA is used to investigate the nature and relationships among the latent constructs and test a prior hypothesis about relationships between observed variable and latent variables or factors. Besides, CFA plays a vital role in measurement model validation in structural analyses (17, 18). Researchers evaluated the relationship model as to whether or not the seven factors have accurately reflected the desired constructs or factors, before evaluating the structural model. Absolute fit indices indicate how well a preceding model fits the sample data (19) and establishes which proposed model has the best fit. These measures offer the most vigorous suggestion as to how well the proposed theory fits the data. The variance-covariance matrix was analyzed using the maximum-likelihood estimation and multiple indices of model fit including the Chi-Square statistic (χ^2), the standardized root mean square residual (SRMR), the comparative fit index (CFI), the goodness-of-fit statistic (GFI), the adjusted goodness-of-fit statistic (AGFI), normed-fit index (NFI), the Tucker-Lewis index (TLI), and the root mean square error of approximation (RMSEA).

FINDINGS

All the 250 distributed questionnaires have been successfully collected with the assistance from the senior assistant of each research school, giving a response rate as 100 percent. The findings of this research are presented in accordance with the research objectives stated above. The initial findings are the factor loading values of the seven quality culture factors. This is followed by an assessment of the validity of the observable variables to test the goodness of fit of the quality culture factors with the empirical data.

Factor Loading and Validity of Observable Variables in the Relationship Model

As indicated in Table 1 below, the factor loading values of all the quality culture factors ranged from 0.800 to 0.955 are statistically significant at .01. Factor loading refers to the importance of standard factors of each factor in the relationship model of the quality culture of the Royal Award Schools that had been taken into account. The co-variance with quality culture factors was from 64.00 to 91.20 percent. The factor with the highest factor loading was Teamwork (TEAM). This is followed by Focusing on client (CUS), Strategy management (STR), Teacher professional development (PRO), Quality of leader development (LEA), and Staff participation (JOI). The factor that had the lowest factor loading value was Continuous improvement (IMP). As a result, all the factors were found to be important constructs of quality culture. Table 1 portrays the details of each factor of quality culture ranking in order from the highest to the lowest factor loading values.

TABLE 1: FACTOR LOADING OF QUALITY CULTURE FACTORS

Quality Culture Factors	Factor loading	Prediction coefficient
	β	R^2
Teamwork	0.955	0.912
Focusing on client	0.950	0.903
Strategy management	0.892	0.796
Teacher professional development	0.888	0.789
Quality of leader development	0.844	0.712
Staff participation	0.836	0.699
Continuous improvement	0.800	0.640

B. To Test the Goodness of Fit of the Quality Culture Factors with the Empirical Data

According to the above findings, the correlations between the hypothesized factors and quality culture were high and positive at significant level .01. In addition, findings showed that the relationship model of quality culture and its factors had a goodness fit with evident data, with $\chi^2 = 918.64$; $df = 230$; $\chi^2/df = 1.416$; CFI = 0.98; AGFI = 0.89; SRMR = 0.022; RMSEA = 0.017; RMR = 0.003. It can be concluded that the fit indices revealed that the structural equation model of quality culture is acceptable. The criterion for acceptance for relative chi-square is called as the normed chi-square ($\chi^2/df = 1.416$) is ranging from less than 2 (20) to less than 5 (21) varies across researchers. In addition, SRMR value (0.022) which is lower than .05 indicates that it is a well-fitting model (22, 23). A value of CFI (0.98) which is \geq than .95 is recognized as indicative of good fit (23). The value of AGFI (0.89) which is greater than a cut-off point thus reflects that it is a well-fitting model (23). A cut-off value for RMSEA was recommended by (24) close to .06 or a stringent upper limit of .07 (25). As a result, it was found that the quality culture model agreed with the empirical data. Subsequently, the model was acceptable and researchers could establish the specific paths that were significant as illustrated in Figure 1.

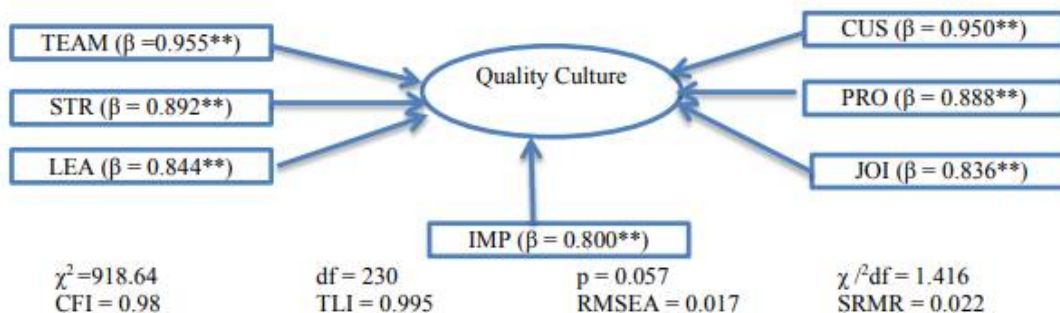


Figure 1: Coefficient of standard factor loading of the quality culture model

DISCUSSION AND CONCLUSION

The major contribution of this research was on the importance of standard factor loading of each hypothesized factors in the relationship model of quality culture in Royal Award Schools, Thailand. Findings of this study revealed that all the hypothesized factors show the factor loading values from 0.800 to 0.955, with statistically significant at 0.01. The co-variance with quality culture was from 64.0 to 91.2 percent. This implies that all the hypothesized factors of quality culture correlate well with the empirical data with statistical significance (26). Hence, all the seven factors namely teamwork, focusing on client, strategy management, teacher professional development, quality of leader development, staff participation, and continuous improvement are essential for school directors to practice in order to enhance high-quality culture of their schools. Consequently, findings seem to be in accordance with the previous research studies (2, 4, 5, 6).

Nevertheless, the final finding indicated that the relationship model of quality culture was found to be consistent with empirical data with $\chi^2 = 918.64$; $df = 230$; $\chi^2/df = 1.416$; CFI = 0.98; AGFI = 0.89; SRMR = 0.022; RMSEA = 0.017; RMR = 0.003 as what has been proposed by researchers. As a result, this can be explained as the relationships between the hypothesized factors and quality culture are well-fitting in the proposed model.

The findings can be concluded based on the following reasons. Firstly, an empirical definition which was adopted in accordance with the various scholars' studies as revealed in the literature was elaborately reviewed. This enables the researchers to increase the possibility of accurately defining the terms according to the research objectives. Moreover, the final findings indicate that the hypothesized factors conformed very well to the empirical data at a statistically significant level. This finding is in line with (27)'s study. (27) stated that the empirical definition is close to the theoretical definition, and is supported by theory, concepts, and literature reviews.

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